Paper No. 34

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALBERT MUSSCHOOT

Appeal No. 2002-2021
Application No. 09/024,077

ON BRIEF

Before ABRAMS, FRANKFORT, and McQUADE, Administrative Patent Judges.
ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's rejection in Paper No. 14 of claims 1-7, 11, 12 and 14-16. Claims 8-10 and 13 have been withdrawn as being directed to a non-elected species.

We REVERSE.

BACKGROUND

The appellant's invention relates to a vibratory feeder of the type used to move objects or particulate matter from one location to another along a generally horizontal path. An understanding of the invention can be derived from a reading of exemplary claim 1, which has been reproduced below.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Musschoot	5,713,457	Feb. 3, 1998
Semenov (Russian Patent)[1]	RU 2000264	Sep. 7, 1993

The following are the standing rejections:

(1) Claims 1-7 under 35 U.S.C. § 112, first paragraph, as being "non-enable[d]" and "not supported by the specification" (Answer, page 4).[2]

(2) Claims 6, 7 and 14 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

(3) Claims 1-7, 11, 12 and 14-16 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention.

---

[1]Our understanding of this foreign language reference was obtained from a PTO translation, a copy of which is enclosed.

[2]No rejection as such was set forth by the examiner in the Answer or in Paper No. 14. However, from the explanation provided under the heading of 35 U.S.C. § 112, first paragraph, in these two papers, it is clear that the examiner's intention was to make this rejection.

(4) Claims 1, 2, 4, 5 and 11 under 35 U.S.C. § 103 as being unpatentable over Semenov in view of Musschoot.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the (Supplemental) Answer (Paper No. 27) for the examiner's complete reasoning in support of the rejections, and to the (Complete) Brief (Paper No. 26)[3] and the Reply Brief (Paper No. 28) for the appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. As a consequence of our review, we make the determinations which follow.

As a preliminary matter, we note that the appellant has included in the issues before us a challenge to the propriety of the examiner's withdrawal of claims 8-10 from consideration on the basis that they are directed to a non-elected species of the invention (Issue D; Brief, pages 31-33). As the examiner has stated on page 10 of the Answer, this issue relates to petitionable subject matter under 37 CFR § 1.181 and is not appealable to the Board of Patent Appeals and Interferences.

---

[3]The appellant filed several briefs in the course of the prosecution of this application, the appropriate contents of which were consolidated in Paper No. 26 (see pages 1-3). Entry of this "Complete Brief" was approved by the examiner (Paper No. 27, page 2)

Claim 1

A vibratory feeder comprising:

a base;

means defining an elongated, generally horizontal feeding surface spaced from said base;

a rotatably mounted eccentric journaled on said surface defining means and operable, when rotated, to impact [sic, impart] vibration to said surface; and

an interconnection mounting said surface defining means to said base and consisting essentially of a resilient element having one end connected to said surface defining means and an opposite end connected to said base, said resilient element having said ends on a generally horizontal axis and being of sufficient stiffness to prevent said axis from shifting from a generally horizontal position.

(1)

Claims 1-7 have been rejected under the first paragraph of Section 112 on the basis that the phrase "of sufficient stiffness to prevent said axis from shifting from a generally horizontal position," which appears in claim 1, contradicts the language in the specification in lines 8 and 9 of page 12, which states that "substantial horizontal displacement occurs." We do not agree.

The appellant discusses the characteristics of coil springs on page 10 of the specification, explaining that the "vertical spring rate" is the rate that comes into play in

axial compression or extension of a coil spring, that is, along the longitudinal axis, and the "horizontal spring rate" is the rate that comes into play when a coil spring is bent along its longitudinal axis, that is, laterally of the longitudinal axis. In the appellant's invention, the longitudinal axes of springs 60 and 130 are oriented horizontally. This being the case, the "substantial horizontal displacement" mentioned on page 12 of the specification refers to the movement of the spring along its horizontally oriented longitudinal axis as the feeding surface is vibrated, and the "minimal" vertical displacement (page 12, line 8) refers to the movement of the spring laterally of its longitudinal axis, that is, perpendicular to the its longitudinal axis. The limitation in question is best understood by considering the description of the operation of the springs on page 10 of the specification: "The springs are sufficiently stiff as to support feeder 14. That is, the springs 60 will not sag to depart substantially from their alignment on a horizontal axis" (lines 11-13). In this regard, "sag" would be deviation from the longitudinal axis of the spring, which happens to be oriented horizontally in the appellant's invention. Using the language of claim 1 as a guide, the resilient element possesses "sufficient stiffness" against displacement from its "generally horizontal [longitudinal] axis" as "to prevent said axis from shifting from a generally horizontal position."

It therefore is our conclusion that no inconsistency is present between the description of the invention set forth in the specification and the manner in which the invention is recited in claim 1, and this rejection will not be sustained.

(2)

Claims 6, 7 and 14 also are rejected under the first paragraph of Section 112 on the basis that the specification fails to disclose how the "balance bar" can balance the vibration of the device. On pages 13-15 of the specification the embodiment of Figures 5-7 is described as having two balance bars 108 attached to the depending pedestals that support the feeding surface, which balance bars counterbalance the vibration produced in the feeding surface by the eccentric weight system. According to the appellant, this results in very little vibration in the horizontal direction being passed to the vertically oriented isolation springs 116, which support the pedestals on the floor or ground. The examiner has not explained why the description is deficient, except to conclude that the claim is broader than the supporting disclosure (Answer, page 5), a conclusion with which we do not agree. From our perspective, the disclosure is quite adequate, and it is our opinion that one of ordinary skill in the art would have been enabled by the specification to make and use the embodiments of the invention in which the balance bars are present.

This rejection is not sustained.

(3)

Claims 1-7, 11, 12 and 14-16 stand rejected under the second paragraph of Section 112 as being indefinite, for several reasons. The first is because the phrase in claim 1 of "an interconnection . . . consisting of essentially a resilient element . . . is of error." Apparently, this refers to the embodiment of Figure 5, wherein the examiner considers the "base" to be pedestal 118, and there is an additional coil spring (116) between the trough and the base. To cure this problem, the examiner suggests that the phrase be changed to "operatively connected" (Answer, page 6).

Our initial reaction to the examiner's position is that we cannot appreciate why "operatively connected" would cause the claim to have a different meaning than "interconnection," and thus overcome the alleged indefiniteness. The controlling issue, however, is whether a claim sets out and circumscribes a particular area with a reasonable degree of precision and particularity, for that is the requirement established by the second paragraph of Section 112. In re Johnson, 558 F.2d 1008, 1015, 194 USPQ 187, 193 (CCPA 1977).[4] We answer this question in the affirmative, that is, it is our opinion that one of ordinary skill in the art would have been able to determine the metes and bounds of the invention from the language used in claim 1 taken in view of the specification.

[4]In making this determination, the definiteness of the language employed in the claims must be analyzed, not in a vacuum, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. Id.

We reach the same conclusion with regard to the examiner's like comments about claims 6 and 14. In each case, the examiner has taken the position that "connected to" must be interpreted as meaning directly connected to. It is our view that this is too restrictive, based upon the common applicable definition of "connected"[5] and the description of the invention in the specification.

This rejection is not sustained.

(4)

The examiner has rejected claims 1, 2, 4, 5 and 11 under Section 103 as being obvious[6] in view of the combined teachings of Semenov and Musschoot. It is the examiner's view that Semenov discloses all of the subject matter recited in these claims except for the particulars of the rotatable and reversible drive. However, the examiner has taken the position that it would have been obvious to provide the Semenov apparatus with this feature in view of the teachings of Musschoot. We do not agree.

---

[5]Joined or fastened together, usually by something intervening. Webster's New Collegiate Dictionary, 1973, page 240.

[6]The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a prima facie case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

Among the requirements of independent claim 1 is an interconnection which mounts the surface defining means to the base "consisting essentially of a resilient element" which is "of sufficient stiffness to prevent said [its longitudinal] axis from shifting from a generally horizontal position." The transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps, "and those that do not materially affect the basic and novel characteristic(s) of the claimed invention."[7] It is our view that a basic characteristic of the appellant's invention is that the feeding surface is supported on the base entirely by horizontally oriented resilient elements, which are of such stiffness as not to sag along their horizontally disposed axis. This is explained throughout the specification, and is clearly shown in Figure 1, wherein feeder 16 is supported on pedestal 64 of base 10 entirely by springs 60, and in Figure 5, where feeder 100 and its mounting bars 108 are supported on pedestal 114 entirely by springs 130.

That is not the case in the Semenov vibrational feeder. Although Semenov discloses horizontally oriented springs 8 which are connected on the one hand to feeder means 1 and on the other hand to a base 4, these springs do not support the feeder means, but merely function to dampen the amplitude of the oscillations provided by vibrator 5 to feeder means 1 (translation, page 6). The feeder means appears to be entirely supported by cylindrical bodies 2, which are mounted on supports 3 and a base

[7] In re Herz, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976).

4, and the reference does not suggest otherwise. Moreover, the reference provides no teaching that the horizontal springs are of such stiffness as to prevent the axis from shifting from a generally horizontal position, and there logically would be no need for such to be the case, inasmuch as the weight of the feeder means and its contents is not supported by these springs. Thus, Semenov does not disclose or teach the limitations in claim 1 that there be an interconnection mounting "consisting essentially of" a resilient element, and a resilient element "of sufficient stiffness to prevent said axis from shifting from a generally horizontal position."

Musschoot was cited only for its teaching of using a particular type of eccentric motion generator in devices such as that of Semenov. Be that as it may, Musschoot fails to overcome the deficiencies pointed out above with regard to the teachings that can be attributed to Semenov. Therefore, the references applied against claim 1 fail to establish a prima facie case of obviousness with regard to the subject matter recited therein, and we will not sustain the Section 103 rejection of independent claim 1 and dependent claims 2, 4 and 5.

Independent claim 11 stands rejected on the same basis. It requires that there be a support assembly "consisting essentially of two spaced, horizontally disposed coil springs." For the reasons set forth above, we also will not sustain the Section 103 rejection of claim 11.

CONCLUSION

None of the rejections are sustained.

The decision of the examiner is reversed.

REVERSED

NEAL E. ABRAMS Administrative Patent Judge	)
CHARLES E. FRANKFORT Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES
JOHN P. McQUADE Administrative Patent Judge	)

NEA/lbg

WOOD, PHILIPS, VAN SANTEN, CLARK
& MORTIMER
500 WEST MADISON STREET
SUITE 3800
CHICAGO, IL 60661-2511